

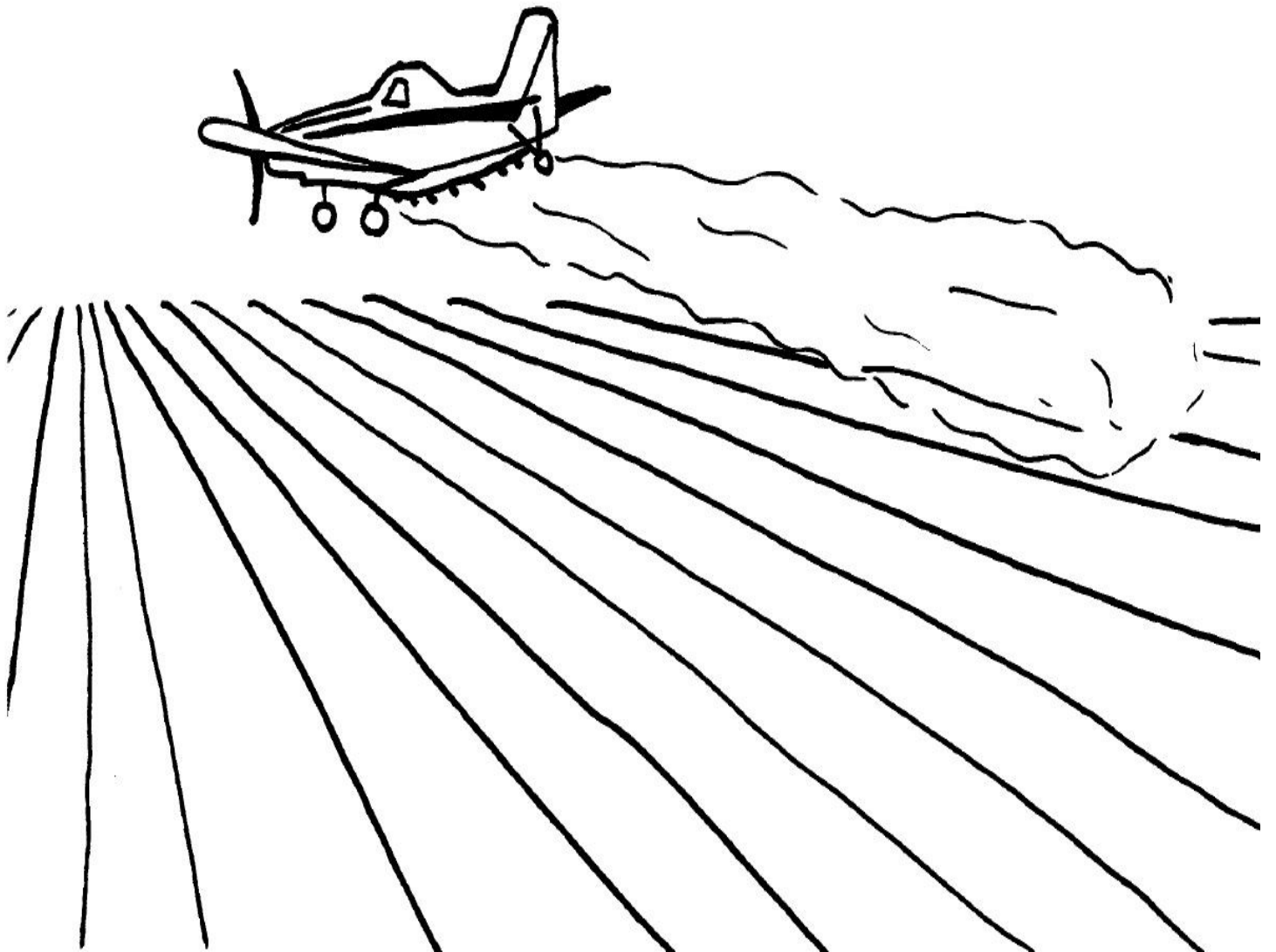
2020 Farm Connection Day

Fifth through Sixth Grade



**Farm Equipment
and Tractors
in Yolo County**

Aerial Application



Aerial Application

Use the Key to help you decode the sentence below.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
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$\frac{9}{L}$ $\frac{14}{L}$ $\frac{19}{N}$ $\frac{24}{T}$ $\frac{7}{I}$ $\frac{2}{N}$ $\frac{24}{G}$ $\frac{18}{G}$ $\frac{26}{I}$ $\frac{2}{C}$ $\frac{22}{E}$ $\frac{3}{I}$

Aerial Applicators

- Aerial Application allows pesticides to be applied quickly and in large sections.
- It does not cause soil compaction, preventing soil runoff and is conducive to higher crop yields because it is non-disruptive to the crop.
- 87% of the aircraft used are fixed-wing aircraft, but 13% a rotorcraft/helicopters.
- Because Aerial Applicators fly low enough to accurately dust the crops, they must be careful to watch out for power lines.
- Aerial Applicators are often called Crop Dusters.

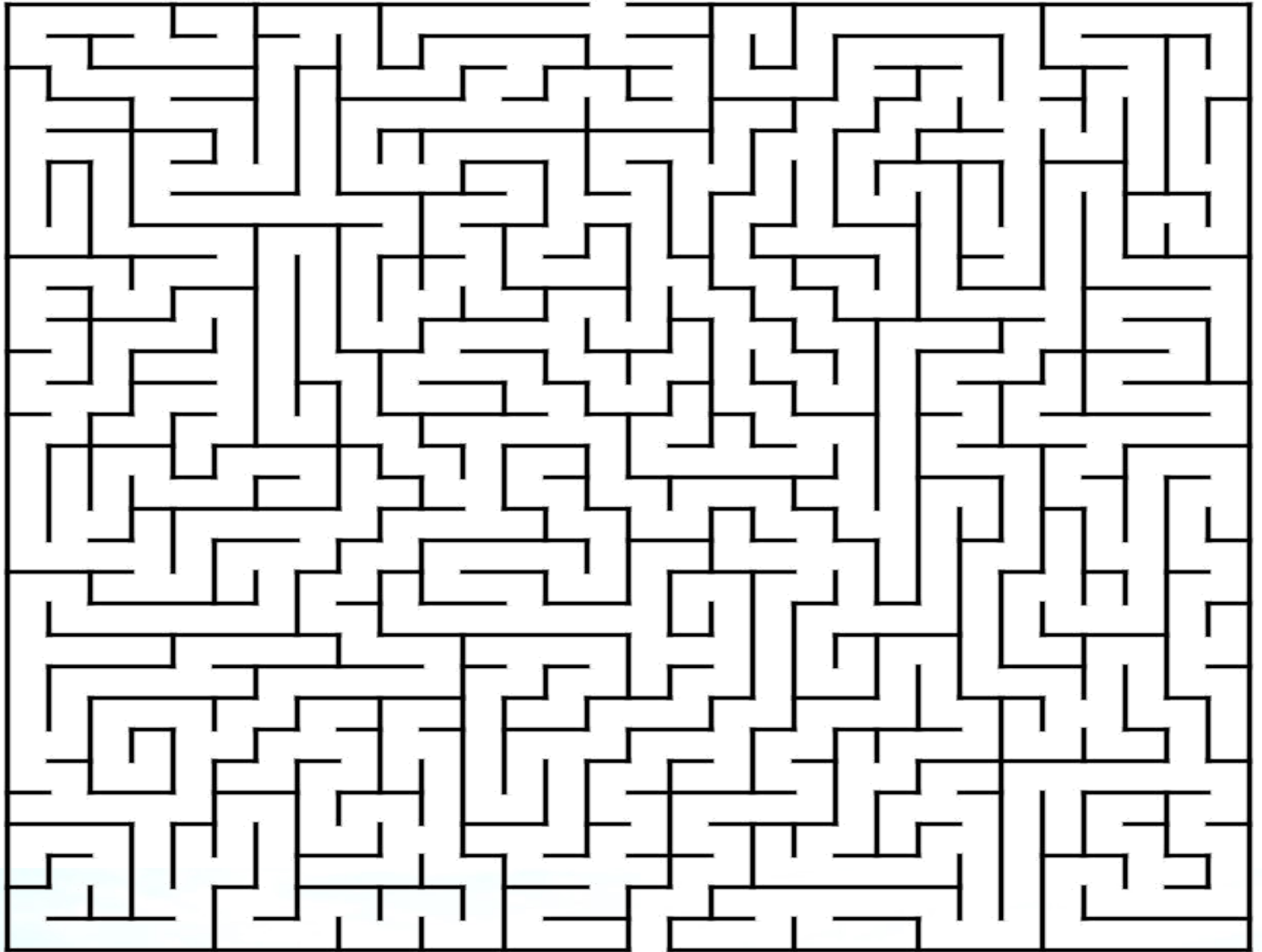
Answer: Aerial Application can be used for many things, including spraying fertilizer and even planting rice!

Baler



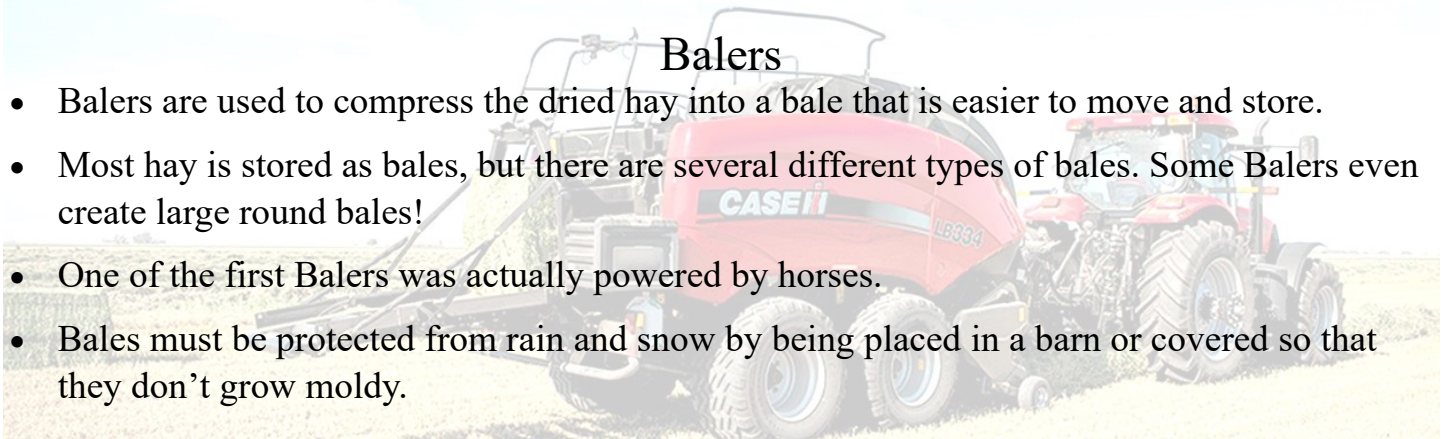
Baler

Find your way through the maze.



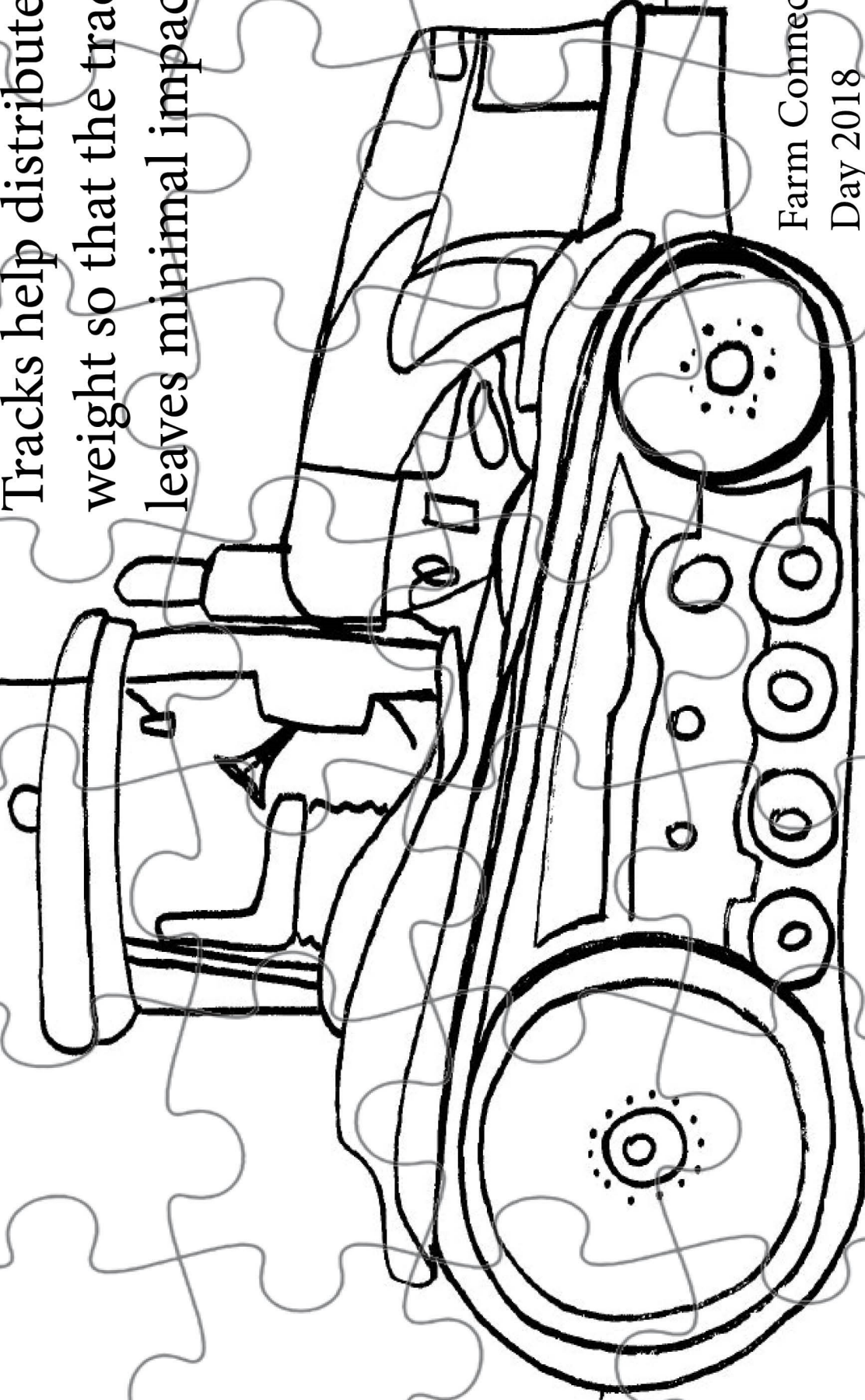
Balers

- Balers are used to compress the dried hay into a bale that is easier to move and store.
- Most hay is stored as bales, but there are several different types of bales. Some Balers even create large round bales!
- One of the first Balers was actually powered by horses.
- Bales must be protected from rain and snow by being placed in a barn or covered so that they don't grow moldy.



CHALLENGER

Tracks help distribute the weight so that the tractor leaves minimal impact!



Farm Connection
Day 2018

Challenger

Unscramble the clue words, then use the numbered circles to help you solve the mystery word!

1. ATCTMNEHATS

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3 11

6. ABC

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9

2. PORFEWUL

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13 4

7. ENNIGE

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7 5

3. TOIRCTAN

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2 6

8. FRAM

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17 15

4. ESAUHXT

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10

9. TGLIALE

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12 1

5. PPEAAROTIRN

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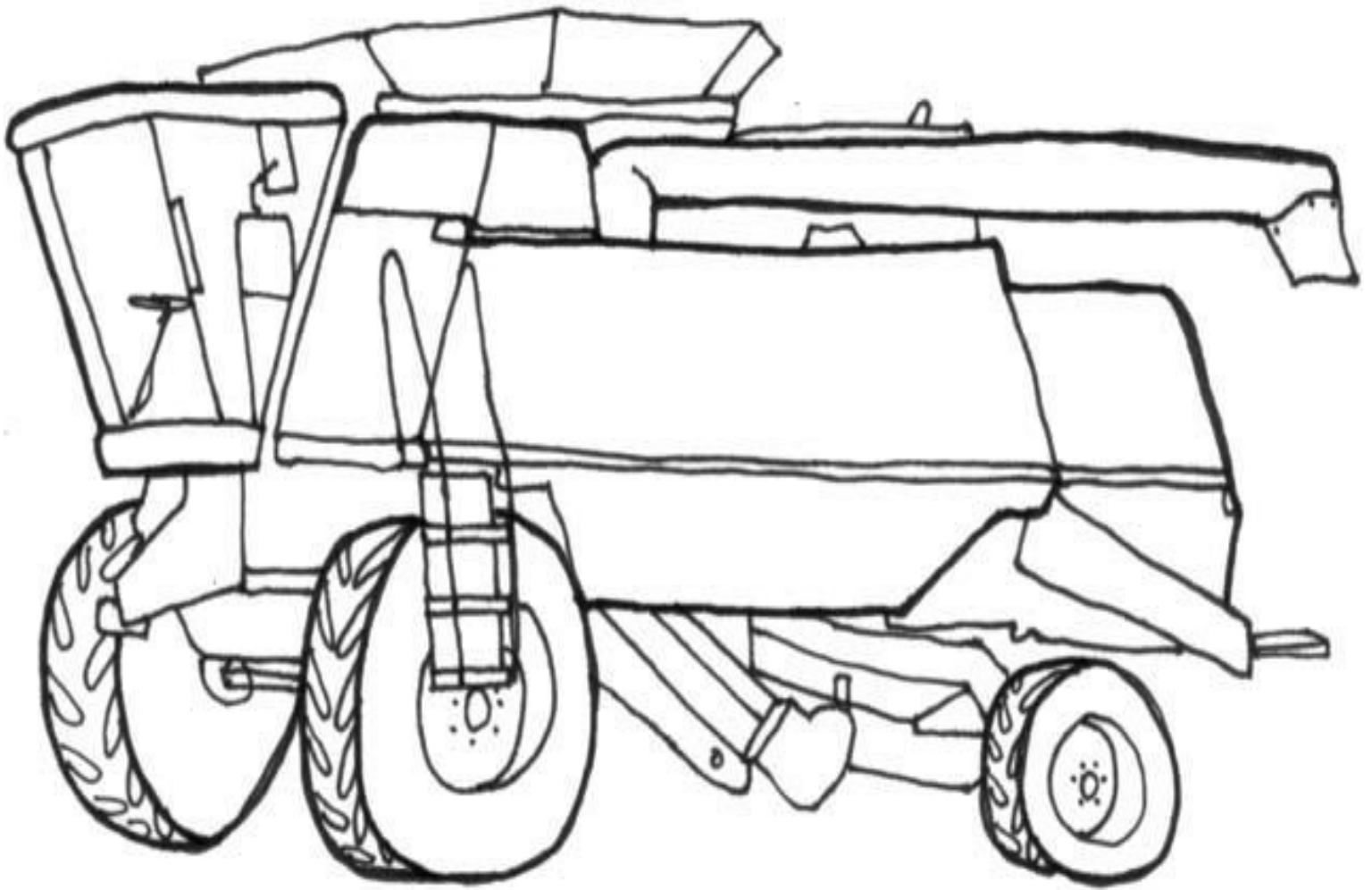
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12- 13- 14- 10- 4- 4- 15- 1- 6- Y D 16- 17- 17- 5- 8- 5- 6- 12-
1 12 12 1 2 3 15 5 6 12 11.

Challenger

- Challenger tractors are used to pull many different attachments because the tracks and suspension allow the tractor to move quickly and smoothly across rough ground.
- Tracks help to distribute the weight so that the tractor leaves minimal impact.
- Challenger tractors can be used for planting, cultivating, and ploughing, just to name a few!

Combine



Combine

Find the words from the Word Bank in the Puzzle!

WORD BANK

SUNFLOWERS

WHEAT

SAFFLOWER

CUT

CORN

SEEDS

HEADER

EQUIPMENT

TRAILER

GRAIN

HARVEST

EFFICIENT

THRESHING

FIELD

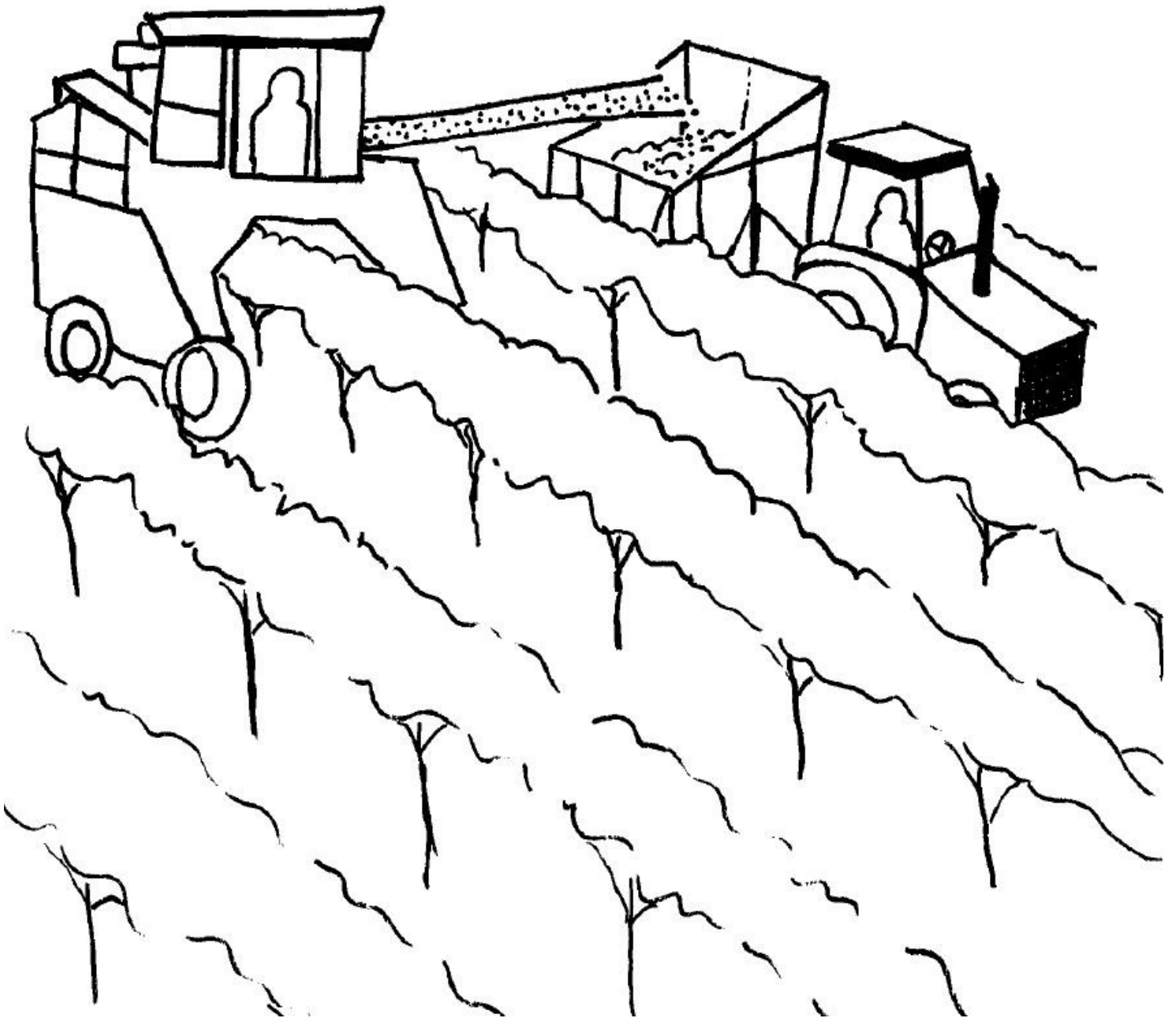
GROWER

E	G	F	M	P	Z	W	A	F	D	K	Z	J	W	P	K	Z	C	Q	H
D	J	Q	V	B	H	H	B	V	Z	Z	O	V	G	C	R	S	T	U	C
N	V	S	M	E	N	Q	A	H	E	F	F	I	C	I	E	N	T	U	X
Q	A	E	A	C	M	C	O	R	N	P	Z	R	K	C	G	U	G	A	A
P	R	T	Q	C	N	A	T	H	V	B	P	C	T	R	Y	V	V	D	M
X	J	E	S	U	N	F	L	O	W	E	R	S	G	G	R	D	G	N	P
B	X	R	L	D	I	P	T	E	W	Z	S	K	S	S	U	N	B	K	H
Q	S	F	T	I	A	P	I	U	P	G	F	T	I	Y	I	U	Y	A	T
W	V	Q	Z	G	A	Z	M	C	F	X	E	O	V	H	E	O	G	L	R
E	F	V	R	M	N	R	A	E	E	Z	U	X	S	X	E	W	C	E	R
G	V	A	L	D	D	L	T	U	N	D	L	E	I	F	Q	W	W	N	S
P	I	G	E	O	P	H	D	J	G	T	R	T	W	M	S	O	Q	W	C
N	C	N	F	N	P	F	E	S	S	H	T	R	E	A	L	G	E	U	Q
R	Z	O	M	M	D	C	D	E	T	R	F	E	J	F	Z	R	X	R	H
T	J	B	F	D	R	E	C	H	Y	I	B	D	F	U	J	O	Q	U	X
U	R	B	I	W	E	I	U	U	U	A	R	A	H	P	K	W	U	A	Q
Y	J	I	X	S	S	X	J	R	O	S	S	E	U	L	N	E	N	C	E
F	D	R	V	M	J	X	G	J	G	E	B	H	R	K	X	R	B	X	T
J	F	U	P	V	Z	Q	D	W	E	Q	V	W	U	G	M	P	W	L	Y
O	H	E	U	T	Y	R	F	M	J	G	J	Y	R	V	J	Q	D	C	M

Combine Harvester

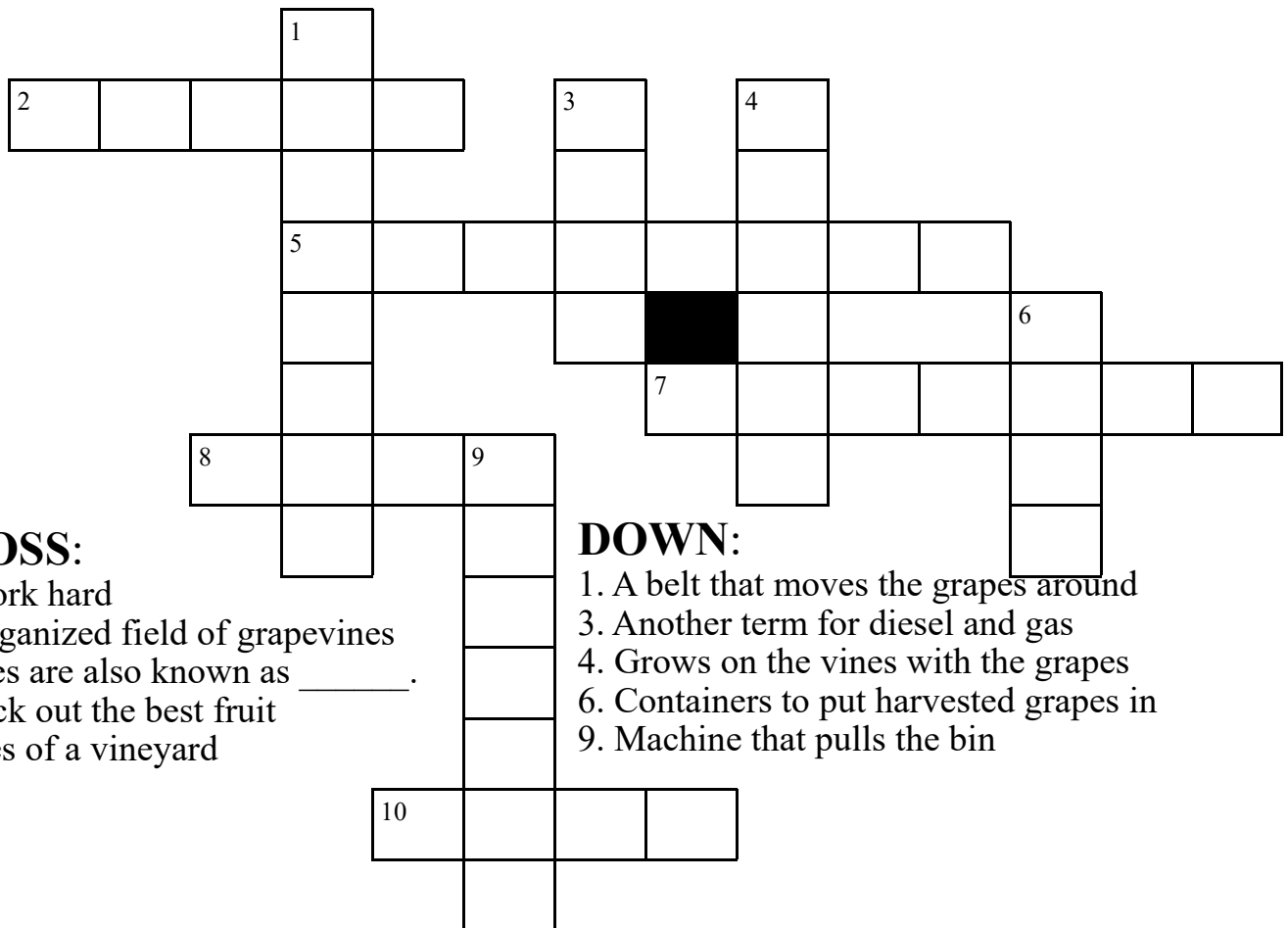
- Combine Harvesters are able to harvest and thresh crops all in one machine. This combination saves growers lots of precious time and gives the harvester its unique name
- Combine Harvesters are often thought of in relation to wheat harvest, but are actually capable of harvesting a wide variety of crops!
- Combine Harvesters can be fitted with a variety of attachments to make it possible to harvest crops like corn and sunflowers.

Grape Harvester



Grape Harvester

Use the clues to figure out which words belong in the puzzle!



ACROSS:

- 2. To work hard
- 5. An organized field of grapevines
- 7. Grapes are also known as _____.
- 8. To pick out the best fruit
- 10. Lines of a vineyard

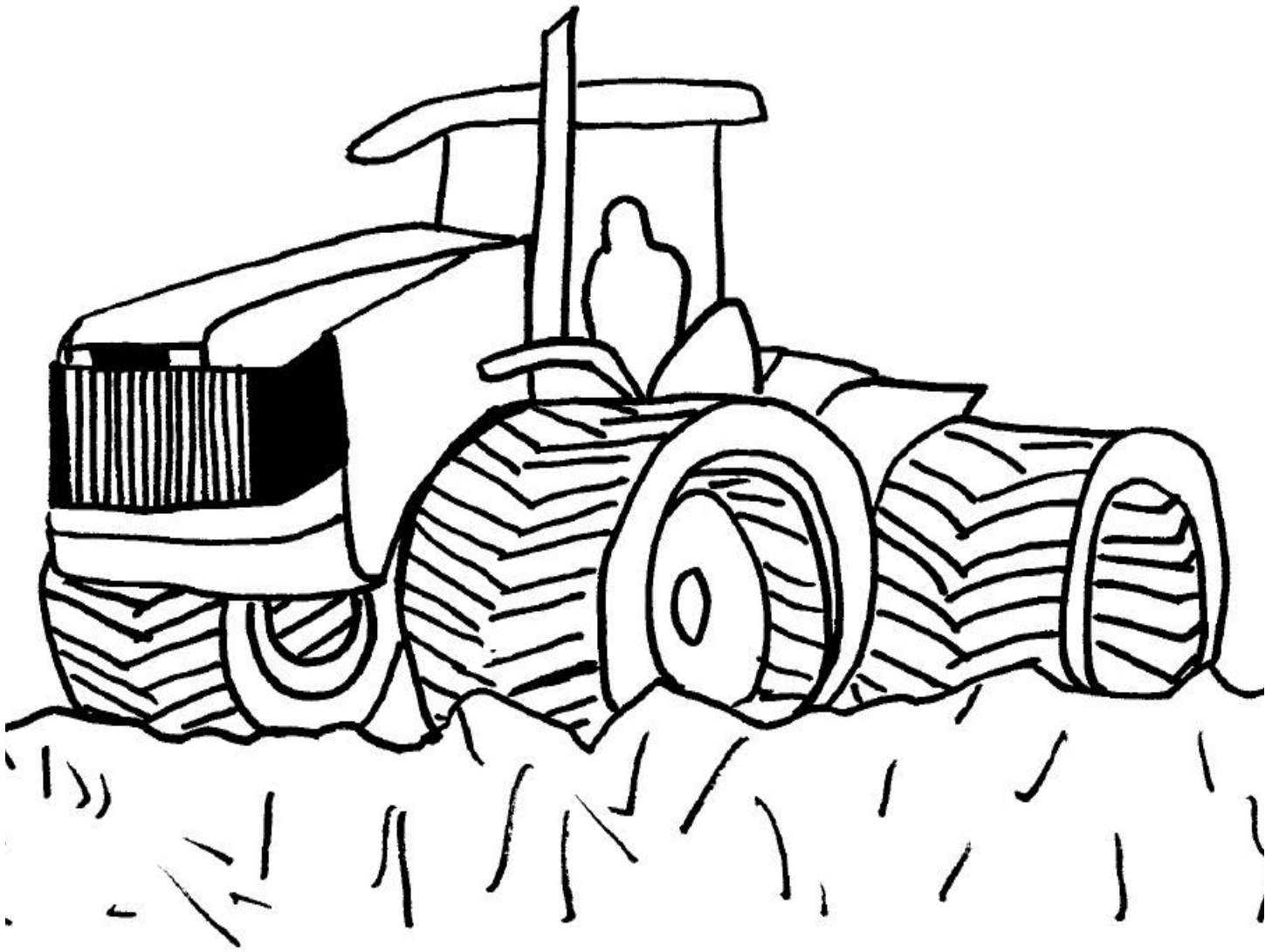
DOWN:

- 1. A belt that moves the grapes around
- 3. Another term for diesel and gas
- 4. Grows on the vines with the grapes
- 6. Containers to put harvested grapes in
- 9. Machine that pulls the bin

Grape Harvester

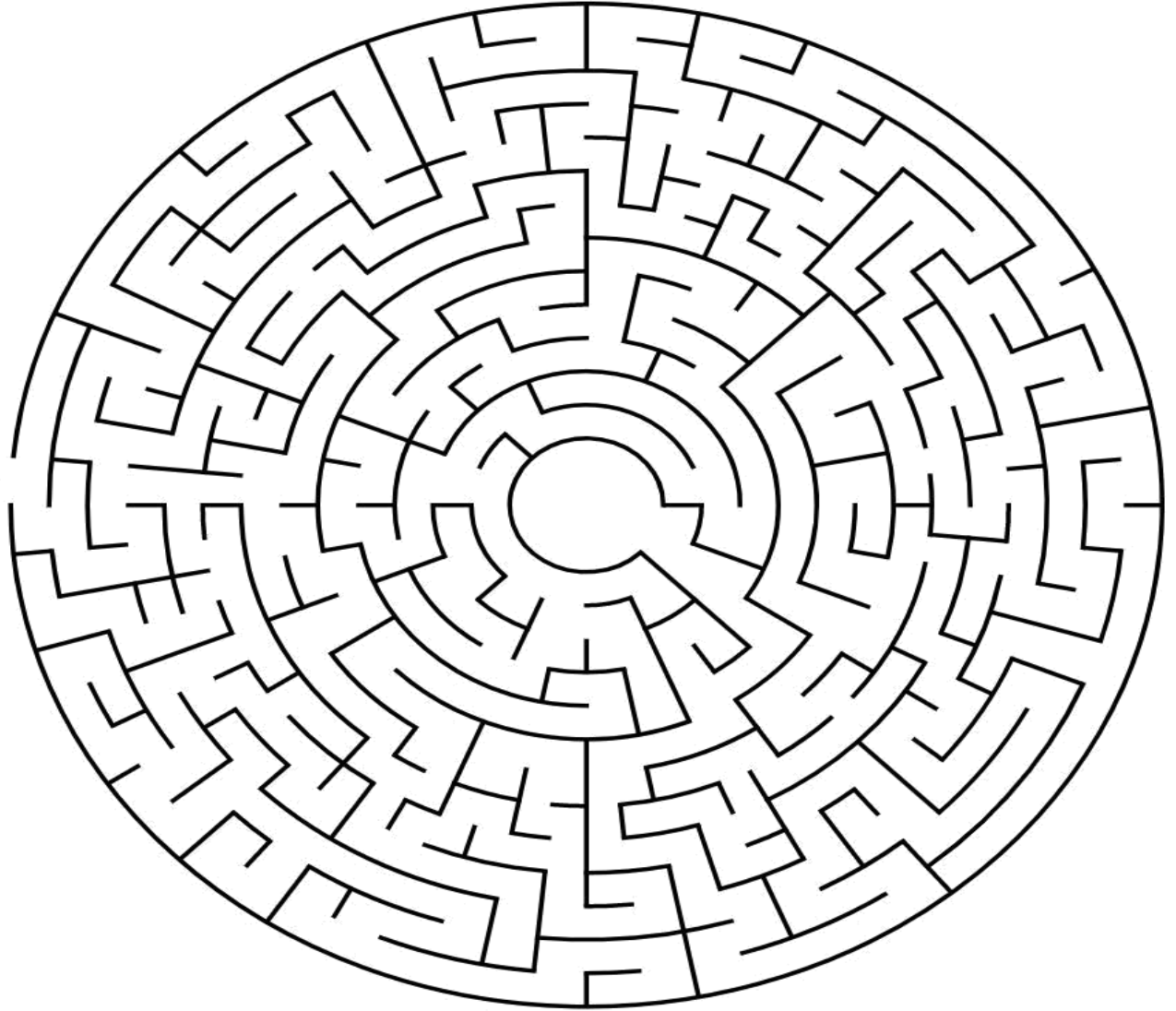
- Grapes are harvested at night when it is cool to make things easier on the workers and ensure a stable sugar level
- Grapes are harvested at different times depending on what they will be used for. Wine grapes intended to make sweet dessert wines are harvested much later than other grapes.
- 99% of grape harvesting is now done by mechanical harvesters.

Rice Stomper



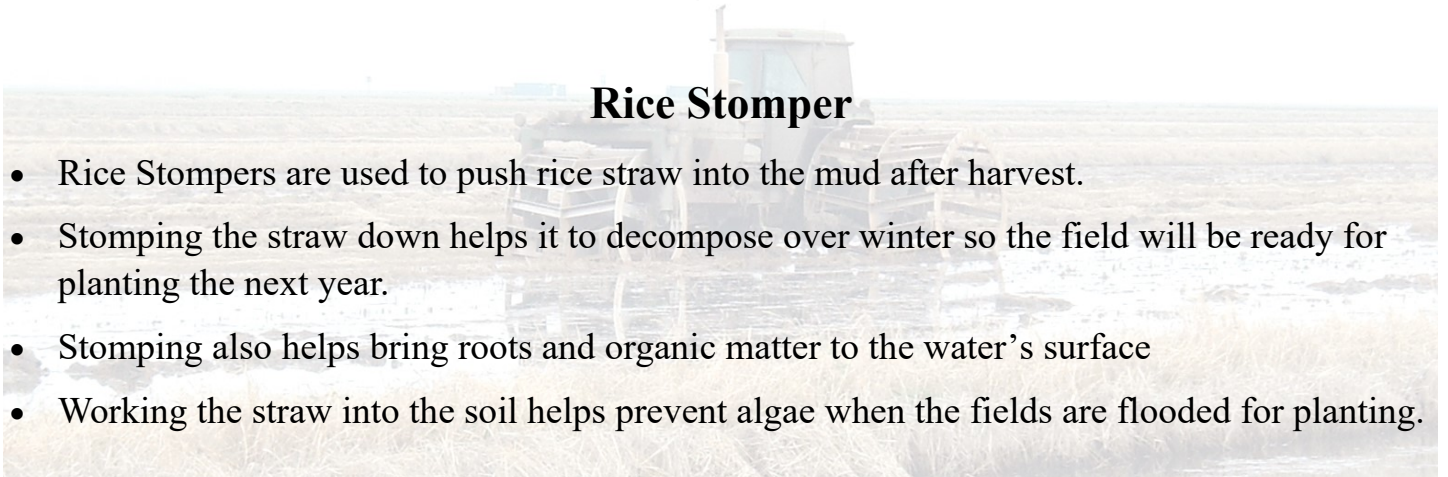
Rice Stomper

Use the Rice Stomper to get to the middle of the flooded field!

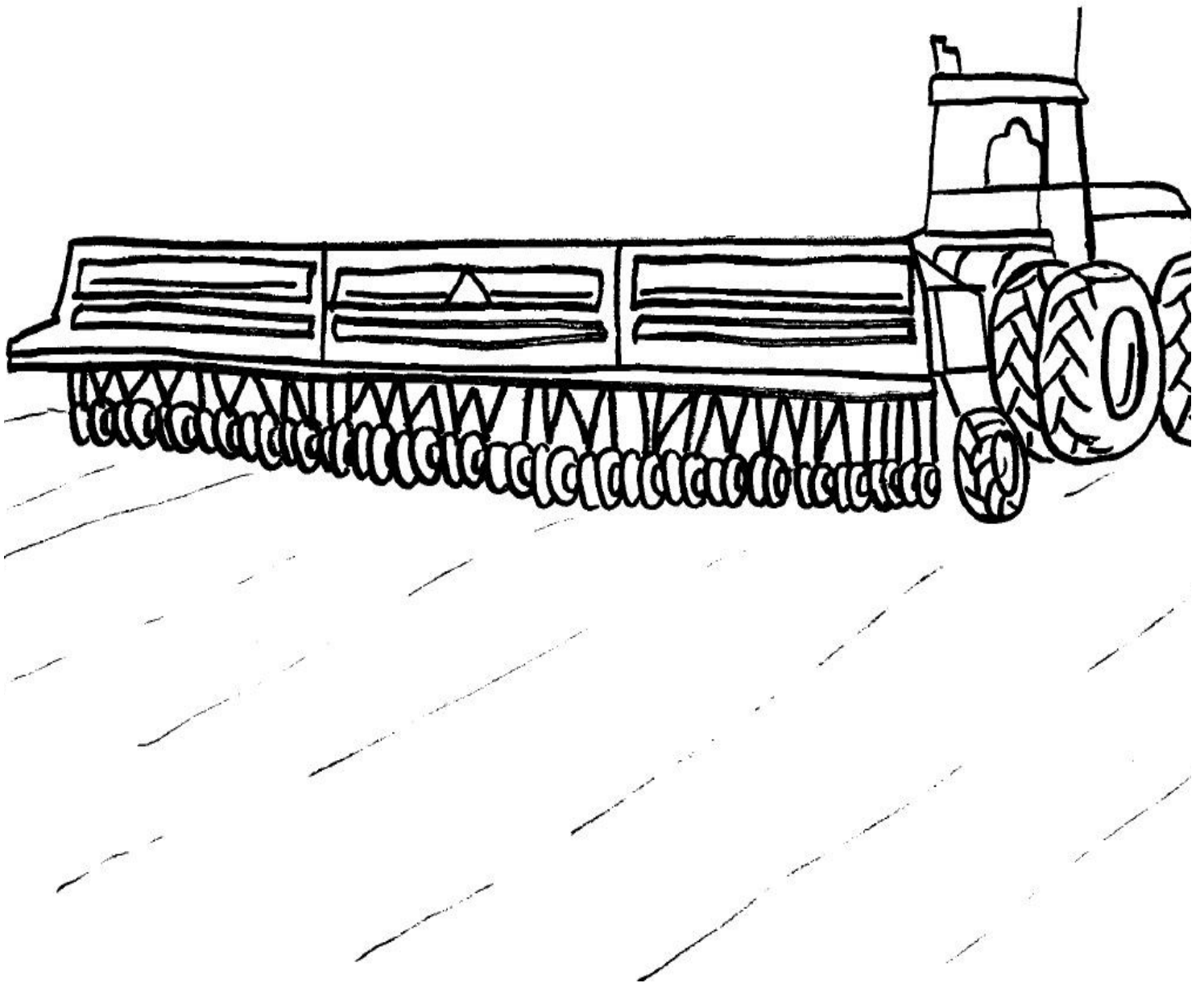


Rice Stomper

- Rice Stompers are used to push rice straw into the mud after harvest.
- Stomping the straw down helps it to decompose over winter so the field will be ready for planting the next year.
- Stomping also helps bring roots and organic matter to the water's surface
- Working the straw into the soil helps prevent algae when the fields are flooded for planting.



Seed Drill



Seed Drill

Unscramble the clue words, then use the numbered circles to help you solve the mystery word!

1. SEEDBD

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3

6. SIOL

--	--	--	--	--	--

6

2. PNTIANLG

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8 11

7. COPRS

--	--	--	--	--	--	--

15

3. PTOIISON

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14 10

8. YILED

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5

4. IOVMPRE

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7 2

9. PLUOGH

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9 12

5. FRRUOWS

--	--	--	--	--	--	--	--

13 1

10. BRUY

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4

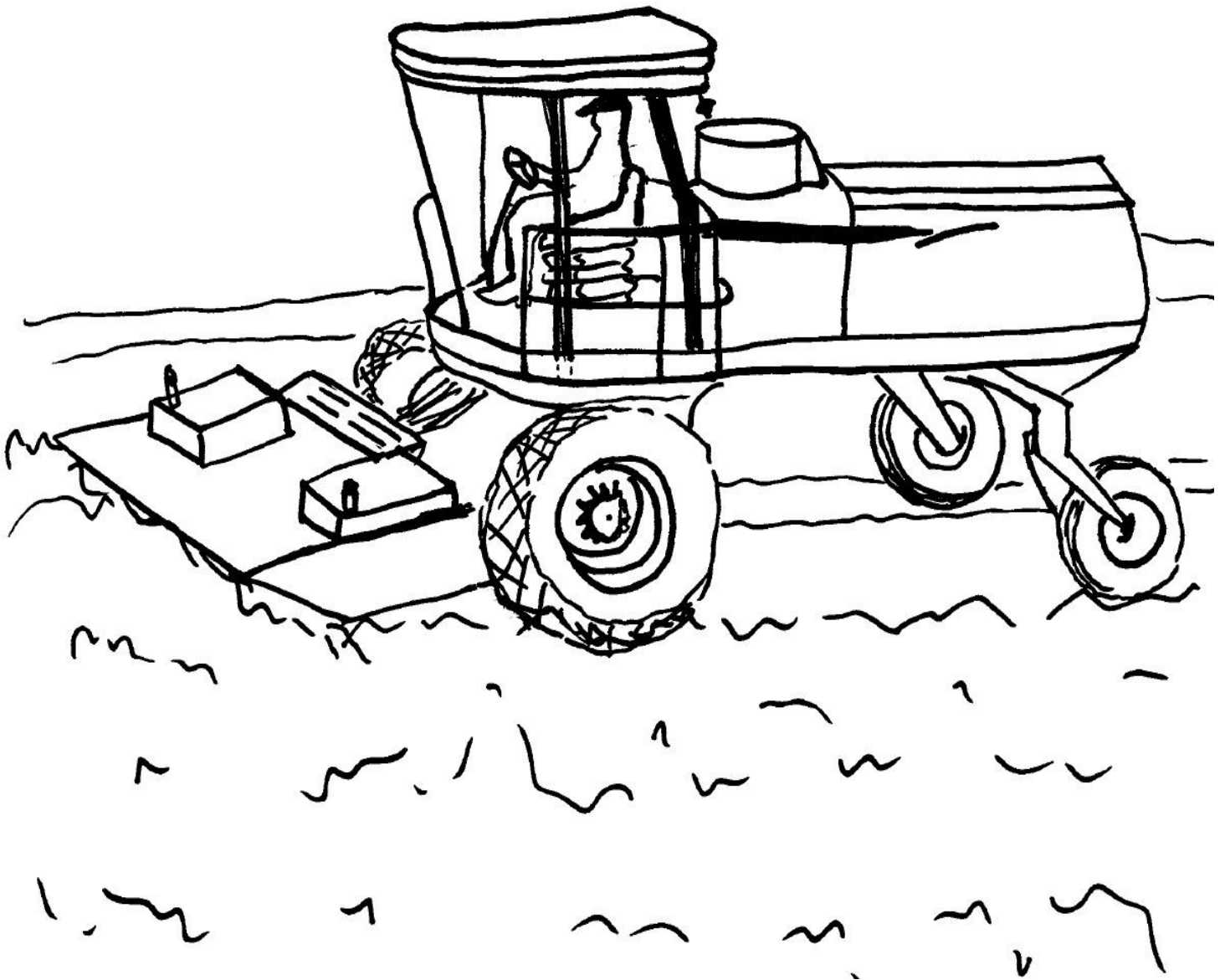
K

1 2 2 3	3 4 5 6 6 1	7 8 2	9 6 8 10 11 5 10 12
13 8 1 11 2 4	8 10 3	7 14 4 2	9 4 2 15 5 1 2

Seed Drill

- Seed drills plant seeds at equal distances and ensure that seeds are covered immediately by soil so they will not be eaten by birds.
- Seed drills can improve the ratio of seeds harvested per seed planted by as much as nine times.
- Each tube in the seed drill creates a hole of a specific depth, drops in one or more seeds and then covers them.
- The first seed drill, invented in 1701, was horse-drawn.

Swather



Swather

Use the Key to help you decode the sentence below.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
	1	24	14	11				20									3	5	7			15			

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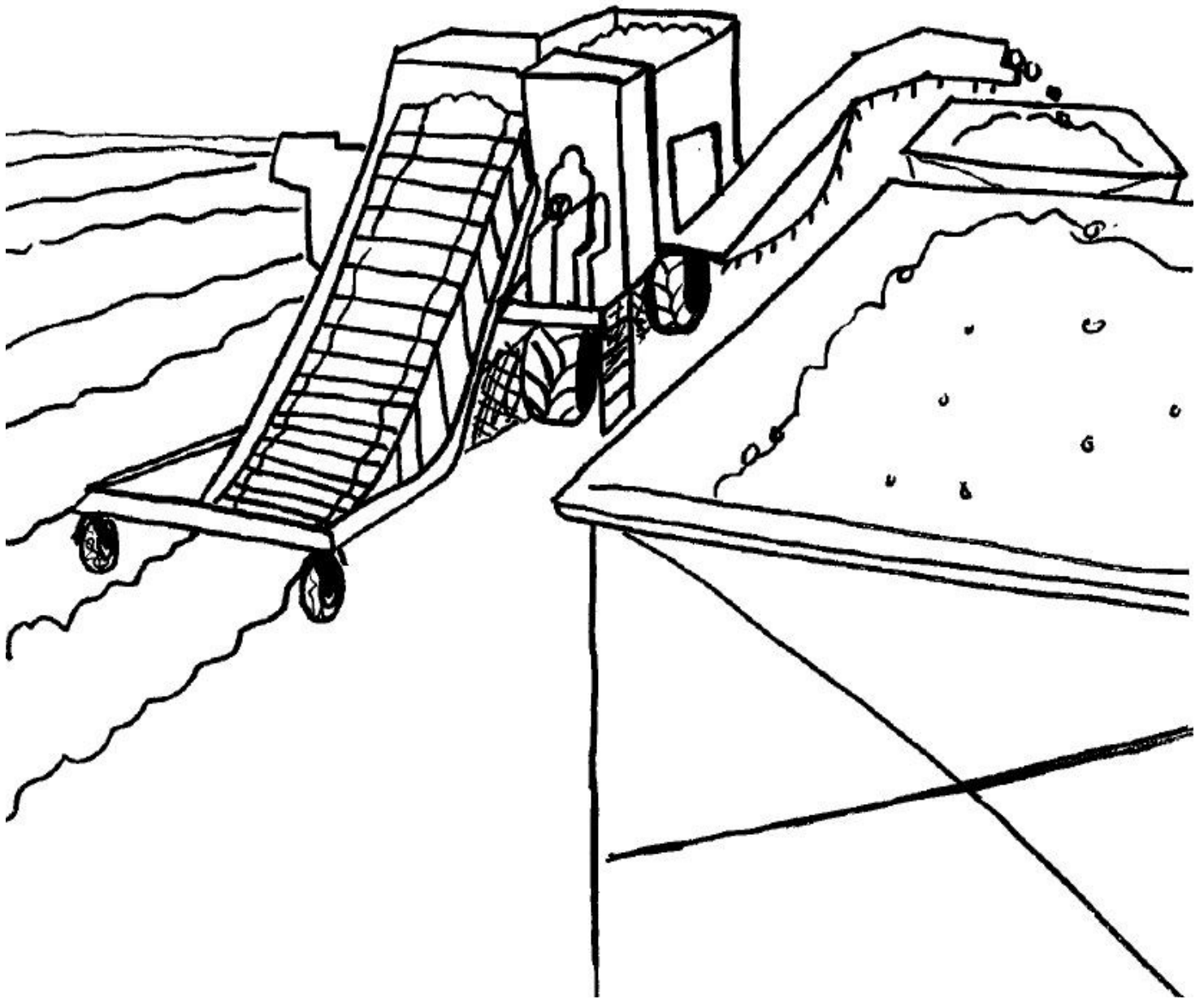
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Swather

- A swather creates windrows that allow the crop to dry out before it is ready to be baled.
- Self-propelled Swathers are better for cutting the crop than attachments because the blades are in the front of the machine and allows the crop to be cut before any tracks are left in it.
- Swathers are used primarily in the northern United States and Canada, but other places leave the crop standing until it is able to be harvested by a Combine.

Answer: A Swather is known as a Windrower in other parts of the world because it creates rows for the wind to dry out the crop.

Tomato Harvester



Tomato Harvester

Find the words from the Word Bank in the Puzzle!

WORD BANK

MACHINE

ROWS

TOMATOES

HARVESTER

FRUIT

TRAILER

SHAKING

BINS

VARIETY

SORTED

RIPE

CREW

CONVEYOR

LABOR

PLANTS

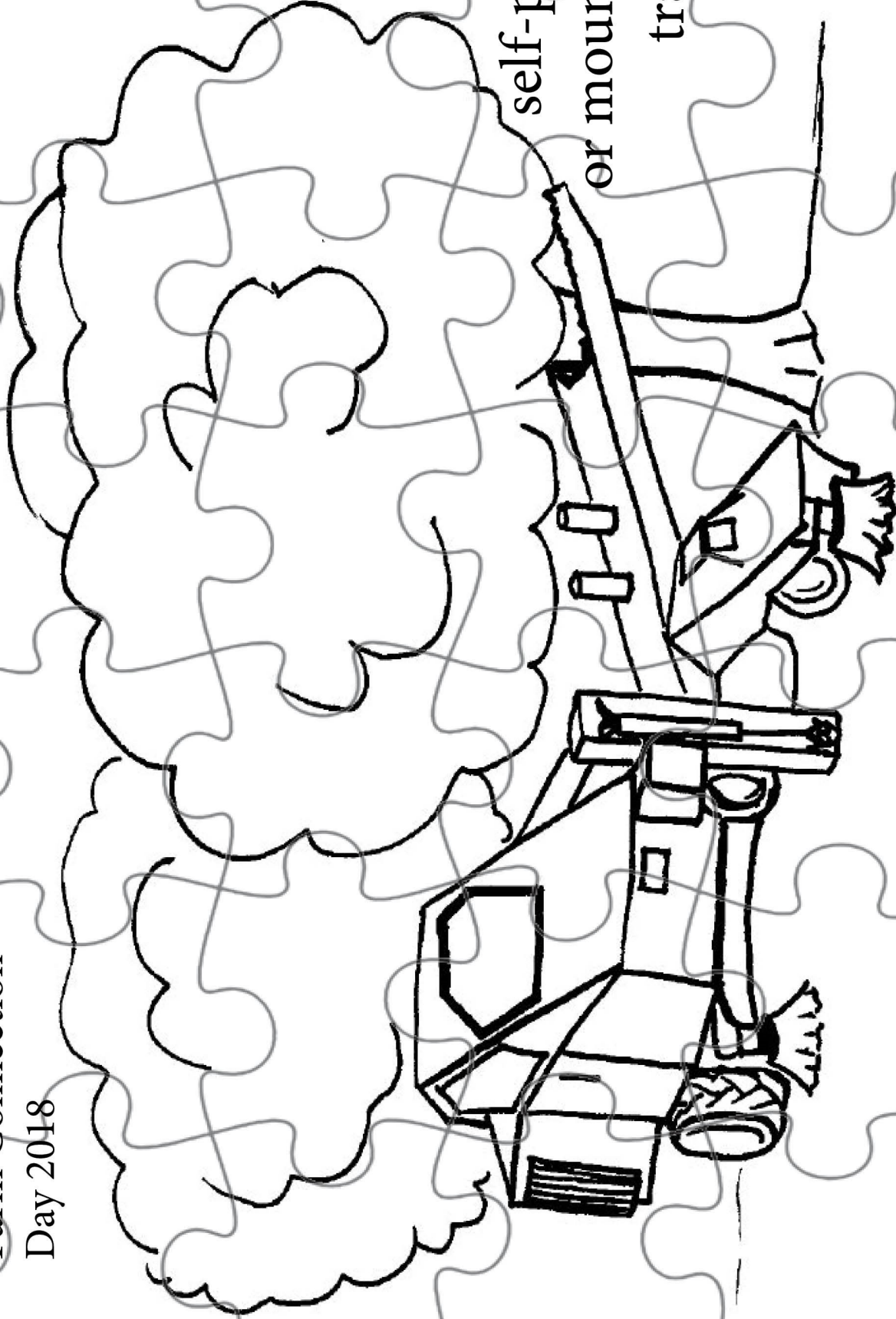
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U	B	Y	S	E	O	T	A	M	O	T	T	C	N	U	F	R	U	I	T
K	Q	Q	V	Q	E	P	G	S	E	Q	U	R	Q	K	R	I	M	T	T
I	P	H	F	K	F	Z	M	U	T	Q	B	G	Y	V	L	D	O	R	A
J	J	D	K	A	Y	E	S	Z	U	N	L	I	J	C	J	I	E	Z	B
E	R	N	J	A	O	R	P	W	P	U	A	M	N	M	Q	L	M	E	A
G	O	D	O	W	Y	T	E	I	R	A	V	L	Y	S	I	L	G	P	M
S	B	T	Y	N	S	U	X	T	R	J	N	R	P	A	E	D	Z	I	J
T	A	W	B	I	R	O	P	R	S	S	M	P	R	Q	N	V	U	H	B
M	L	F	Z	Y	O	Q	R	H	E	E	I	T	G	N	I	K	A	H	S
Z	D	P	P	R	F	W	P	T	T	X	V	M	F	O	H	L	Y	L	Z
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F	W	T	Y	Y	S	I	L	Z	C	P	M	S	Y	H	M	Z	U	H	H
N	R	G	E	B	V	C	R	A	N	Z	V	M	V	F	J	M	Y	B	W
E	Y	W	V	R	A	A	X	H	S	J	P	T	F	K	F	K	N	E	K
V	J	C	N	R	T	G	T	W	Q	Z	I	W	H	A	Z	F	P	K	H
F	K	V	O	P	C	P	O	U	H	U	H	J	J	F	Y	J	O	C	J
K	S	M	C	E	A	R	E	D	W	R	M	B	W	O	Q	S	B	A	P
B	W	X	U	I	K	H	G	Q	J	J	X	Y	M	X	H	Q	K	O	S

Tomato Harvesters

- Tomato harvesters cut the whole plant and move it up a conveyor belt where the machine shakes the fruit off the vines.
- Newer harvesters are calibrated to sort the ripe fruit out from the rest, but there used to be crews that would sort the fruit by hand.
- Sometimes a mouse or a snake gets taken through the machine with the tomatoes.
- Tomatoes, like grapes, are often harvested at night to avoid the heat of the day.

TREE SHAKER

Farm Connection
Day 2018



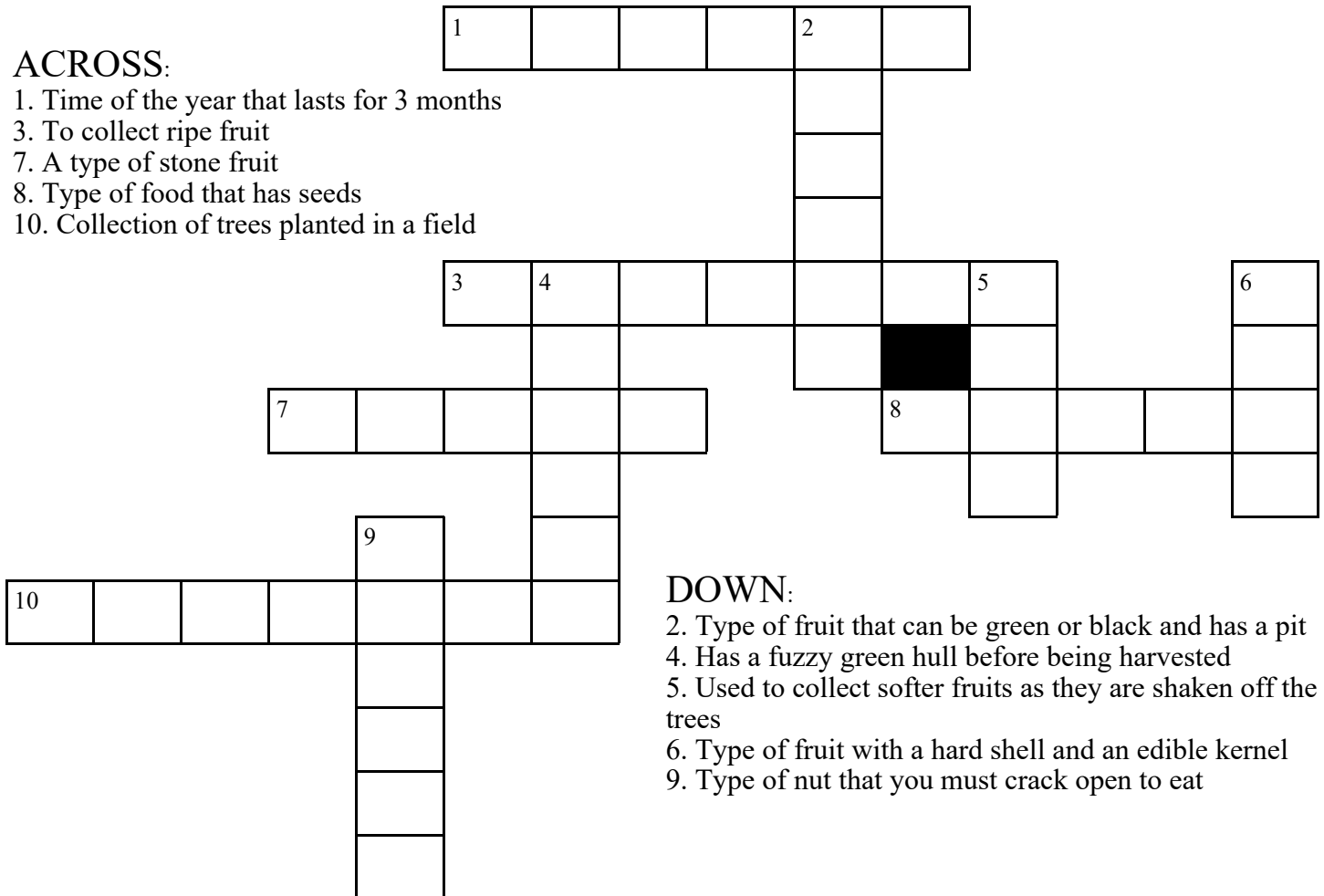
Tree
shakers
can be
self-propelled
or mounted on a
tractor.

Tree Shaker

Use the clues to figure out which words belong in the puzzle!

ACROSS:

1. Time of the year that lasts for 3 months
3. To collect ripe fruit
7. A type of stone fruit
8. Type of food that has seeds
10. Collection of trees planted in a field



DOWN:

2. Type of fruit that can be green or black and has a pit
4. Has a fuzzy green hull before being harvested
5. Used to collect softer fruits as they are shaken off the trees
6. Type of fruit with a hard shell and an edible kernel
9. Type of nut that you must crack open to eat

Tree Shaker

- Tree shakers can be self-propelled or mounted on a tractor.
- Some tree shakers have an attachment that allows the fruit to be caught as it falls off the tree. Others just let the fruit fall onto the ground where it is swept up later.
- Tree shakers have a long metal arm that clamps around the trees and vibrates the fruit off the tree.
- For fruit that bruises easily, a fruit-catcher that looks like an upside down umbrella is attached to the tree. The fruit rolls down and lands on a conveyor belt that moves it into a bin.

YOLO COUNTY



FARM BUREAU

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